## REMARKS

In the Office Action, the Examiner noted that claims 1-27 are pending in the application; that claims 1-23, and 26 are rejected; and that claims 24 and 25 are objected to. The Examiner is silent with respect to why claim 26 is rejected.

By this response, claims 1, 9, 10, 12, 14-18, 24, and 25 are amended; and claims 2-8, 11, 13, 19-23, 26 and 27 continue unamended. In view of the following discussion, the Applicant submits that none of the claims now pending in the application is indefinite, anticipated, or obvious under the provisions of 35 U.S.C. §§ 112, 102, or 103 respectively. Thus, the Applicant believes that all of these claims are now in allowable form.

## ALLOWABLE SUBJECT MATTER

The Examiner allowed claim 27 and objected to claims 24 and 25 as being dependent upon a rejected base claim. The Examiner concludes that claims 24 and 25 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

The Applicant thanks the Examiner for indicating allowable subject matter with respect to these claims. As such, the Applicant has amended claims 24 and 25 into independent form to include all of the features of their base claim and intervening claims. The Applicant submits that claims 24 and 25, as amended, are allowable. In addition, dependent claim 26 (which depends directly from claim 25) is also allowable at least for its dependency upon allowable claim 25. Therefore, the Applicant requests reconsideration and withdrawal of the objection to claims 24 and 25.

## REJECTION OF CLAIMS UNDER 35 U.S.C. §112

The Examiner rejected claims 9-11 and 16-18 under 35 U.S.C. §112, second paragraph, as being indefinite. The Applicant has amended claims 9 and 10 to provide proper antecedent basis and to correct the dependency of claim 16, as indicated above. The Applicant submits that claims 9, 10, and 16 are in allowable form. In view of these amendments, dependent claims 11, 17, and 18 are also in allowable form. As such, the Applicant requests reconsideration and withdrawal of the 35 U.S.C. §112 rejection of the claims.

In addition, the Applicant has also amended claims 12, 16, 24, 26, and 27 to add the "and" between element numbers. The amendments to the claims are fully supported by the specification as originally filed and add no new matter.

## REJECTION OF CLAIMS UNDER 35 U.S.C. §102

The Examiner rejected claims 1-9 under 35 U.S.C. §102(e) as being anticipated by Chen et al. (U.S. Patent No. 6,268,864, issued July 31, 2001) ("Chen"); claim 12 under 35 U.S.C. §102(e) as being anticipated by Yoshio et al. (U.S. Patent No. 6,310,625, issued October 30, 2001) ("Yoshio"); claims 12-15 and 19-22 under 35 U.S.C. §102(e) as being anticipated by Uchihachi et al. (U.S. Patent No. 6,535,639, issued March 18, 2003) ("Uchihachi"); and claims 12 and 16-18 under 35 U.S.C. §102(e) as being anticipated by Brodersen et al. (U.S. Patent No. 6,453,459, issued September 17, 2003) ("Brodersen"). The Applicant respectfully traverses the rejection.

### A. Claims 1-9

The Examiner rejected claims 1-9 under 35 U.S.C. §102(e) as being anticipated by Chen. The Applicant disagrees.

Chen discloses an apparatus and method for linking a video and an animation. Specifically, Chen generates a series of images and overlays animation over the generated images where desired.

> Chen discloses the use of an authoring system which includes a background track generator, an object track generator, and an animation object generator. The background track generator analyzes the sequence of frames in the video source to **generate** a background track. The background track includes a sequence of background frames and information that can be used to **interpolate** between the background frames.
>
> The object track generator receives both the background track from the background track generator and the video source 10. The object track generator generates zero or more object tracks based on the background track and the video source and forwards the object tracks to the animation object generator.
>
> The animation object generator receives the background track from the background track generator and the zero or more object tracks from the object track generator and writes the tracks to an animation object. See Chen at col. 6, lines 2-35. (Emphasis added).

Applicant discloses an apparatus which segments video sequences and links the segments via identified characteristics. For example, Applicant's claim 1 recites:

> Apparatus for processing video comprising:
> a segmenter for segmenting video sequences into a plurality of video segments;
> a video processor for processing the video segments of the video sequences and identifying common attributes between video segments; and
> a database for storing processed segments of the video sequences, where a plurality of processed video segments are linked via the identified common characteristics. (Emphasis added).

Applicant's claim 1 recites an apparatus that utilizes a segmenter which segments video sequences (i.e., divides a video sequence into clips). These clips can be divided based upon user defined criteria such as, for example, a scene cut that is detected through object motion analysis, pattern analysis and the like. Each segment is analyzed by a video processor that identifies common attributes between the video segments. A database stores the video segments and links the video segments based upon the results of the analysis.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983)) (emphasis added). The Chen reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

Specifically, Chen does not provide a segmenter which divides an existing video sequence into segments of video clips that are parts of the original video sequence. Rather, Chen creates background track based upon a sequence of images. In other words, the background track is not simply a video clip that is directly segmented from the input sequence. That is why Chen discloses an interpolation step to generate the background track. Chen further does not disclose "a video processor for processing the video segments of the video sequences and identifying common attributes between video segments" or "a database for storing processed segments of the video sequences, where a plurality of processed video segments are linked via the identified common characteristics," as claimed by the Applicant.

As such, the Applicant submits that independent claim 1 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Moreover, dependent claims 2-9 (which depend either directly or indirectly upon independent claim 1) recite additional features thereof. As such, and at least for the same reasons as discussed above, the Applicant submits that these dependent claims fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, the Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-9.

**B. Claim 12**

The Examiner rejected claim 12 under 35 U.S.C. §102(e) as being anticipated by Yoshio. The Applicant disagrees.

Yoshio discloses a clip display method and apparatus. Specifically, Yoshio discloses a clip length ratio display means for dividing a graphic representation of the overall length of a motion picture into segments based upon the lengths of the clips to the overall length of the motion picture.

The Applicant discloses a method which stores video segments into a database with an associated unique identifier and identifies common attributes between video clips. For example, Applicant's claim 12 positively recites:

> "A method of image processing comprising:
> segmenting a video sequence into a plurality of video clips;
> storing said video clips in a database with an associated unique identifier and identifying common attributes between video clips;
> storing said video clips in said database such that video clips are linked via the identified common attributes; and
> indexing said stored video." (Emphasis added).

The Applicant discloses a method that segments a video sequence into video clips. The Applicant's claim 12 is a method which recites features similar to the Applicant's apparatus claim 1 (described in detail above). For example, the method segments a video sequence into a plurality of video clips based upon user defined criteria such as, for example, a scene cut that is detected through object motion analysis, pattern analysis and the like. The video clips are stored with an associated unique identifier and common attributes between the video segments that are identified.

A database stores the video segments and links the video clips based upon the common attributes.

Yoshio does not teach each element as recited in the Applicant's claim 12. Specifically, Yoshio segments and provides a graphical representation of the segments based upon the length of the segment with respect to the entire length of the video. In addition, Yoshio does not identify common attributes between the video clips or link the video clips based upon the common attributes. Rather, Yoshio provides a graphical representation of the overall length of a motion picture into segments based upon the lengths of the clips to the overall length of the motion picture.

As such, the Applicant submits that independent claim 12 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Therefore, the Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 12.

**C. Claims 12-15 and 19-22**

The Examiner rejected claims 12-15 and 19-22 under 35 U.S.C. §102(e) as being anticipated by Uchihachi. The Applicant disagrees.

Uchihachi discloses a method of calculating the importance of shots or segments in a video. The more important shots are kept while the less important shots are discarded. Thus Uchihachi creates a new shot sequence.

Applicant's claim 12 positively recites:

> "A method of image processing comprising:
> segmenting a video sequence into a plurality of video clips;
> storing said video clips in a database with an associated unique identifier and identifying common attributes between video clips;
> storing said video clips in said database such that video clips are linked via the identified common attributes; and
> indexing said stored video." (Emphasis added).

The arguments presented in "Section B" regarding the patentability of claim 12 are also applicable with respect to the instant section. As such, and for brevity, those arguments are incorporated into the instant section and are not repeated.

In contrast, Uchihachi only stores some of the clips (i.e., images) (those which have been determined to be important) and uses these clips to create a new sequence. Because Uchihachi discards "unimportant" clips, the original video sequence is not

retrievable from the stored clips. Uchihachi does not disclose storing the video clips in a database with an associated unique identifier and identifying common attributes between video clips, or storing the video clips in said database where a plurality of processed video clips are linked via the identified common attributes. Not only does Uchihachi not contain all of the features recited by Applicant's claim 12, by only utilizing some of the clips Uchihachi teaches away from the Applicant's claimed invention.

As such, the Applicant submits that independent claim 12 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Moreover, dependent claims 13-15 and 19-22 (which depend from either independent claim 12) are also patentable, at least for their dependency upon independent claim 12. Therefore, the Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 12-15 and 19-22.

D. **Claims 12 and 16-18**

The Examiner rejected claims 12 and 16-18 under 35 U.S.C. §102(e) as being anticipated by Brodersen. The Applicant disagrees.

Brodersen discloses a DVD menu authoring method for automatically performing low level DVD configuration functions. Specifically, the method allows authoring of a DVD title and recalling authoring information. The method constructs a skeleton form of a programming chain to provide the user with a GUI.

As indicated above, the Applicant's claim 12 recites a method which stores video segments into a database with an associated unique identifier. Specifically, Applicant's claim 12 positively recites:

> "A method of image processing comprising:
> segmenting a video sequence into a plurality of video clips;
> storing said video clips in a database with an associated unique identifier and identifying common attributes between video clips;
> storing said video clips in said database such that video clips are linked via the identified common attributes; and
> indexing said stored video." (Emphasis added).

The Applicant incorporates the arguments and description made on behalf of claim 12 above into the instant section. For brevity, the arguments and description are not repeated.

In contrast, Brodersen does not segment a video sequence into a plurality of video clips; store the video clips in a database with a unique identifier and identify common attributes between the video clips; or store and link via common attributes a plurality of video clips. Rather, Brodersen uses programming chain data in accordance with the DVD specification to create a skeleton of a programming chain. See Brodersen at col. 2, lines 47-60; and col. 3, line 63-col. 4, line 4.

The Applicant submits that the programming chain data in Brodersen is not a video sequence segmented into a plurality of video clips, as claimed by the Applicant. As such, Brodersen does not contain each and every element as recited in the Applicant's claim 12.

As such, the Applicant submits that independent claim 12 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Moreover, dependent claims 16-18 (which depend from either independent claim 12) are also patentable, at least for their dependency upon independent claim 12. Therefore, the Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 12 and 16-18.

## REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

The Examiner rejected claims 10 and 11 under 35 U.S.C. §103 as being unpatentable over Chen in view of Balram et al. (U.S. Patent No. 6,034,733, issued March 7, 2000) ("Balram"); and claims 22, 23, and 25 under 35 U.S.C. §103 as being unpatentable over Yoshio in view of Balram. The Applicant respectfully traverses the rejections.

### A. Claims 10 and 11

The Examiner rejected claims 10 and 11 under 35 U.S.C. §103 as being unpatentable over Chen in view of Balram. The Applicant disagrees.

The arguments presented above with respect to the distinctions between the Applicant's invention and Chen are also applicable with respect to the instant rejection. As such, and for brevity those arguments are incorporated into this section and not repeated. In view of those arguments, the Applicant submits that the Applicant's invention is not obvious in view of Chen.

To support the rejection of claims, the Examiner combines Balram with Chen. Balram does not bridge the substantial gap between Chen and the Applicant's invention. For example, Balram discloses a video deinterlacing system that receives interlace video data at a non-deterministic rate and generates non-interlaced data as a function of the interlaced video data. Balram does not disclose a segmenter which segments video sequences. Nor does Balram disclose "a video processor for processing the video segments of the video sequences and identifying common attributes between video segments; and a database for storing processed segments of the video sequences, where a plurality of processed video segments are linked via the identified common characteristics," as claimed by the Applicant.

In rejecting claims under 35 U.S.C. §103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. Denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp. 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Applicant respectfully submits that the Examiner fails to provide a prima facie factual basis to support the legal conclusion of obviousness.

Since Chen and Balram either individually or in any reasonable combination fail to disclose or suggest the claimed invention, it is respectfully submitted that the invention of claim 1 is patentable over the cited references. As such, dependent claims

10 and 11 (which depend either directly or indirectly from claim 1) are also patentable over the cited references. Therefore, the Applicant submits that claims 10 and 11, as they now stand, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. As such, the Applicant requests reconsideration and withdrawal of the obviousness rejection of claims 10 and 11.

**B. Claims 22, 23, and 25**

The Examiner rejected claims 22, 23, and 25 under 35 U.S.C. §103 as being unpatentable over Yoshio in view of Balram. The Applicant disagrees. Please note that the Examiner indicated that claim 25 contained allowable subject matter. As such, the Applicant believes that the rejection of claim 25 over Yoshio in view of Balram is improper.

The arguments made above against Yoshio are also applicable with respect to the instant rejection. As such, and for brevity, those arguments are incorporated into the instant section and are not repeated.

To support the rejection of claims, the Examiner combines Balram with Yoshio. Balram does not bridge the substantial gap between Yoshio and the Applicant's invention. The Applicant has presented arguments above against Balram. Those arguments are also applicable with respect to the instant rejection. As such, and for brevity, those arguments are incorporated into the instant section and are not repeated.

The Applicant discloses a method that segments a video sequence into video clips. Specifically, Applicant's claim 12 positively recites:

> "A method of image processing comprising:
> segmenting a video sequence into a plurality of video clips;
> storing said video clips in a database with an associated unique identifier and identifying common attributes between video clips;
> storing said video clips in said database such that video clips are linked via the identified common attributes; and
> indexing said stored video." (Emphasis added).

As explained above, a video sequence is segmented. The video clips are stored in a database and associated with a unique identifier code to facilitate recovery from the database. The stored video clips are indexed to facilitate access to the video.

In contrast, Yoshio does not teach or suggest storing the video clips with an associated unique identifier. Balram also does not teach or suggest this feature. The

Applicant maintains that there is no motivation or suggestion provided in either of these references to combine the references. However, presuming arguendo that the references were combined, their combination would not lead to the Applicant's claimed invention.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather, the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 U.S.P.Q. 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The combination of Yoshio and Balram fails to teach or suggest the Applicant's invention as a whole (e.g., the references do not store the video clips with an associate unique identifier).

Since Yoshio and Balram either individually or in any reasonable combination fail to disclose or suggest the claimed invention, it is respectfully submitted that the invention of claim 12 is patentable over the cited references. As such, dependent claims 22, 23, and 25 (which depend either directly or indirectly from claim 12) are also patentable over the cited references. Therefore, the Applicant submits that claims 22, 23, and 25, as they now stand, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. As such, the Applicant requests reconsideration and withdrawal of the obviousness rejection of claims 22, 23, and 25.

In addition, the Examiner indicated that claim 25 contained allowable subject matter. As such, the Applicant believes that the rejection of claim 25 over Yoshio in view of Balram is improper.

## Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §§112, 102, and 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is

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requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: January 5, 2004

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